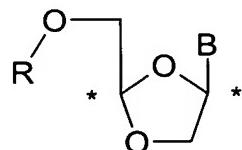


The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

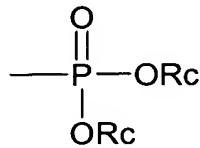
Claims 1-10 (Cancelled):

11. (Previously Presneted) A method for treating leukemia in a host comprising administering to the host having leukemia a therapeutically effective amount of at least one compound of general formula I



(I)

wherein B is cytosine or 5-fluorocytosine and R is selected from the group comprising H, monophosphate, diphosphate, triphosphate, carbonyl substituted with a C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₆₋₁₀ aryl, and



wherein each Rc is independently selected from the group comprising H, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl and hydroxy protecting groups, and wherein said compound is substantially in the form of the (-) enantiomer; and

administering doxorubicin to a patient.

12,13. (Presently Amended) A The method according to claim 11, wherein the leukemia is chronic myelogenous leukemia.

13,14. (Presently Amended) A The method according to claim 11, wherein

the leukemia is acute myelogenous leukemia.

14. 15. (Presently Amended) A The method according to claim 11, further comprising the step of administering a multidrug resistance reversing agent or a biological response modifier.

15. 16. (Presently Amended) A The method according to claim 14 15, wherein the multidrug resistance agent is PSC 833.

16. 17. (Presently Amended) A The method according to claim 14 15, wherein the biological response modifiers are selected from the group consisting of monoclonal antibodies and cytokines.

17. 18. (Presently Amended) A The method according to claim 14 15, wherein the cytokines are selected from the group consisting of interferons, interleukins and colony-stimulating factors.

18. 19. (Presently Amended) A The method according to claim 14 15, wherein the biological response modifiers are selected from the group consisting of Rituxan, CMA-676, Interferon-alpha recombinant, Interleukin-2, Interleukin-3, Erythropoietin, Epoetin, G-CSF, GM-CSF, Filgrastim, Sargramostim and Thrombopoietin.

19. 20. (Presently Amended) A The method according to claim 11, wherein the compound of formula I and the doxorubicin are administered sequentially.

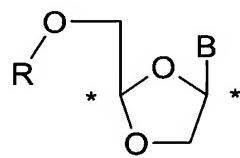
20. 21. (Presently Amended) A The method according to claim 11, wherein the compound of formula I and the doxorubicine are administered simultaneously.

21. (Originally numbered as Claim 22) (Cancelled)

22. (Originally numbered as Claim 23) (Cancelled)

23. (Originally numbered as Claim 24) (Cancelled)
24. (Originally numbered as Claim 25) (Cancelled)
25. (Originally numbered as Claim 26) (Cancelled)
26. (Originally numbered as Claim 27) (Cancelled)
27. (Originally numbered as Claim 28) (Cancelled)
28. (Originally numbered as Claim 29) (Cancelled)
29. (Originally numbered as Claim 30) (Cancelled)
30. (Originally numbered as Claim 31) (Cancelled)
31. (Originally numbered as Claim 32) (Cancelled)
32. (Originally numbered as Claim 33) (Cancelled)
33. (Originally numbered as Claim 34) (Cancelled)

34. 35. (Presently Amended) A pharmaceutical composition comprising at least one compound of formula I

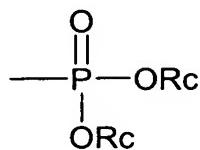


(I)

wherein

B is cytosine or 5-fluorocytosine,

R is H, monophosphate, diphosphate, triphosphate, carbonyl substituted with a C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₆₋₁₀ aryl, or



Rc is in each case independently H, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl or a hydroxy protecting group, and wherein said compound is substantially in the form of the (-) enantiomer; and

~~a chemotherapeutic agent selected from Asparaginase, Bleomycin, Busulfan, Carmustine, Chlorambucil, Cladribine, Cyclophosphamide, Cytarabine, Daearbazine, Daunorubicin, Doxorubicin, Etoposide, Fludarabine, Gemcitabine, Hydroxyurea, Idarubicin, Ifosfamide, Lomustine, Mechlorethamine, Melphalan, Mercaptopurine, Methotrexate, Mitomycin, Mitoxantrone, Pentostatin, Procarbazine, 6-Thioguanine, Topotecan, Vinblastine, Vineristine, Dexamethasone, Retinoic acid and Prednisone.~~

35. (Presently amended) A composition according to claim 34 35, further comprising a pharmaceutically acceptable carrier.

36. (Originally numbered as Claim 37) (Cancelled)

37. (Originally numbered as Claim 38) (Cancelled)

38. (Originally numbered as Claim 39) (Cancelled)

39. (Originally numbered as Claim 40) (Cancelled)

40. (Originally numbered as Claim 41) (Cancelled)

41. 42. (Presently Amended) A composition according to claim 35 36, further comprising a multidrug resistance reversing agent or a biological response modifier.

42. 43. (Presently Amended) A composition according to claim 41 42,

wherein the multidrug resistance agent is PSC 833.

43. 44. (Presently Amended) A composition according to claim 41 42, wherein said biological response modifier is a monoclonal antibody or a cytokine.

44. 45. (Presently Amended) A composition according to claim 43 44, wherein said cytokine is an interferon, an interleukin or a colony-stimulating factor.

45. 46. (Presently Amended) A composition according to claim 41 42, wherein the biological response modifier is Rituxan, CMA-676, Interferon-alpha recombinant, Interleukin-2, Interleukin-3, Erythropoetin, Epoetin, G-CSF, GM-CSF, Filgrastim, Sargramostim or Thrombopoietin.

46. 47. (Presently Amended) A composition according to claim 35 36, wherein said compound is (-)- β -L-Dioxolane-Cytidine (β -L-oddC) or a pharmaceutically acceptable salt thereof.

47. 48. (Presently Amended) A composition according to claim 35 36, wherein said compound is (-)- β -Dioxolane-5-fluoro-Cytidine (5-FddC) or a pharmaceutically acceptable salt thereof.

48. 49. (Presently Amended) A composition according to claim 46 47, wherein said compound is (-)- β -L-Dioxolane-Cytidine (β -L-oddC).

49. 50. (Presently Amended) A composition according to claim 47 48, wherein said compound is (-)- β -Dioxolane-5-fluoro-Cytidine (5-FddC).

50. 51. (Presently Amended) A composition according to claim 35 36, wherein said compound is at least 95% free of the corresponding (+) enantiomer.

51. 52. (Presently Amended) A composition according to claim 35 36, wherein said compound is at least 97% free of the corresponding (+) enantiomer.

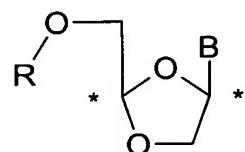
52. 53. (Presently Amended) A composition according to claim 35 36, wherein said compound is at least 99% free of the corresponding (+) enantiomer.

53. 54. (Presently Amended) A composition according to claim 35 36, wherein said composition is in unit dosage and contains 10 to 1500 mg of said compound per unit dosage form.

54. 55. (Presently Amended) A composition according to claim 35 36, wherein said composition is in unit dosage and contains 20 to 1000 mg of said compound per unit dosage form.

55. 56. (Presently Amended) A composition according to claim 35 36, wherein said composition is in unit dosage and contains 50 to 700 mg of said compound per unit dosage form.

56. 57. (Presently Amended) A pharmaceutical combination comprising at least one compound of formula I

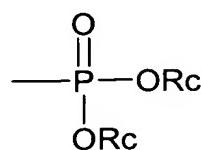


(I)

wherein

B is cytosine or 5-fluorocytosine,

R is H, monophosphate, diphosphate, triphosphate, carbonyl substituted with a C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₆₋₁₀ aryl, or



Rc is in each case independently H, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl or a hydroxy protecting group, and wherein said compound is substantially in the form of the (-) enantiomer; and

~~a chemotherapeutic agent selected from Asparaginase, Bleomycin, Busulfan, Carmustine, Chlorambucil, Cladribine, Cyclophosphamide, Cytarabine, Daecarbazine, Daunorubicin, Doxorubicin, Etoposide, Fludarabine, Gemcitabine, Hydroxyurea, Idarubicin, Ifosfamide, Lomustine, Mechlorethamine, Melphalan, Mercaptopurine, Methotrexate, Mitomycin, Mitoxantrone, Pentostatin, Procarbazine, 6-Thioguanine, Topotecan, Vinblastine, Vineristine, Dexamethasone, Retinoic acid and Prednisone.~~

57. ~~58.~~ (Presently Amended) A combination according to claim 56 ~~57~~, wherein said compound and said chemotherapeutic agent are in separate pharmaceutical formulations.

58. ~~59.~~ (Presently Amended) A combination according to claim 56 ~~57~~, wherein said compound and said chemotherapeutic agent are in a combined pharmaceutical formulation.

59. ~~60.~~ (Presently Amended) A method according to claim 11, wherein said compound of formula I is (-)-β-L-Dioxolane-Cytidine (β -L-oddC) or a pharmaceutically acceptable salt thereof.

60. (Originally numbered as claim 61) (Cancelled)

61. ~~62.~~ (Presently Amended) A composition according to claim 35 ~~38~~, wherein said compound of formula I is (-)-β-L-Dioxolane-Cytidine (β -L-oddC) or a pharmaceutically acceptable salt thereof.

62. ~~63.~~ (Presently Amended) A combination according to claim 56 ~~57~~, wherein said compound of formula I is (-)-β-L-Dioxolane-Cytidine (β -L-oddC) or a pharmaceutically acceptable salt thereof, and said chemotherapeutic agent is Doxorubicin.

63. (New) A composition according to claim 35, wherein said compound

of formula I is (-)- β -L-Dioxolane-Cytidine (β -L-OddC) or a pharmaceutically acceptable salt thereof.

64. (New) A method according to claim 11, wherein the step of administering comprises administering to a patient that has been previously treated with Ara-C.

65. (New) A method according to claim 11, wherein said patient is suffering from a leukemia which is non-responsive to treatment with other chemotherapeutic agents.

66. (New) A method according to claim 11, wherein said compound is at least 95% free of the corresponding (+) enantiomer.

67. (New) A method according to claim 11, wherein said compound is at least 97% free of the corresponding (+) enantiomer.

68. (New) A method according to claim 11, wherein said compound is at least 99% free of the corresponding (+) enantiomer.

69. (New) A method according to claim 59, wherein β -L-OddC is administered in an amount of at least 1 mg/kg and doxorubicin is administered in an amount of at least 2 mg/kg.

70. (New) A composition according to claim 61, wherein said composition contains doxorubicin and β -L-OddC at a ratio of at least 1:2.

71. (New) A combination according to claim 62, wherein the ratio of doxorubicin to β -L-OddC is at least 1:2.